PTO/SB/21 (08-03

Approved for use through 07/31/2006. OMB 0651-0031 U.S. Patent and Trademark Office: U.S. DEPARTMENT OF COMMERCE

Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it displays a valid OMB control number.

Application Number 10/643,144 TRANSMITTAL August 18, 2003 Filing Date **FORM** First Named Inventor Gwang Hoon KWAG (to be used for all correspondence after initial filing) Art Unit 1774 Unknown **Examiner Name** 61282.00007 Total Number of Pages in This Submission Attorney Docket Number

		ENCLOSURES	(check all that apply)	
Fee Transmittal F	form (in duplicate)	☐ Drawing(s)		After Allowance Communication to Group
Fee Attached		Licensing-relate	d Papers	Appeal Communication to Board of Appeals and Interferences
Amendment / Rep	oly	Petition		Appeal Communication to Group (Appeal Notice, Brief, Reply Brief)
After Final		Petition to Conv		Proprietary Information
☐ with RCE		Power of Attorne Change of Corre	ey, Revocation espondence Address	Request for Status of Application
Extension of Time (in duplicate)	e Request	Terminal Discla	imer	Other Enclosure(s) (please identify below):
⊠ Return Postcard		Request for Ref		Copies of non-US documents: DE 198 46 766 A1; DE 198 46 767 A1; DE 198 46 768 A1 and Applied Physics Letters Article -
Information Disclo (2 pages)	sure Statement			Volume 80, No. 6
PTO Form 1449 ((Original and one initialed by the Exreturned to us).	copy to be	Remarks		
Response to Miss Incomplete Applic			•	
Response to Parts under 3 1.52 or 1.53				
	SIGNA	TURE OF APPLIC	ANT, ATTORNEY, OF	RAGENT
Firm <i>or</i> Individual name	Aaron Wininger, Reg. Squire, Sanders & De 600 Hansen Way Palo Alto, CA 94304	empsey L.L.P.		
Signature	4			
Date	December 8, 2003	0		
		CERTIFICA	TE OF MAILING	

CERTIFICATE OF MAILING

I hereby certify that this correspondence is being facsimile transmitted to the USPTO or deposited with the United States Postal Service with sufficient postage as first class mail in an envelope addressed to: Commissioner for Patents, P.O. Box 1450, Alexandria. VA 22313-1450 on the date shown below.

7 HCXIII HIA, V/1 22010 140	o on the date shown below:			
Typed or printed name	Aaron Wininger			
Signature	2 ~~	Date	December 8, 2003	

This collection of information is required by 37 CFR 1.5. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to 12 minutes to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.

U.S. Patent and Trademark Office: U.S. DEPARTMENT OF COMMERCE
Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it displays a valid OMB control number.

	FEE	TR	AN	SMIT	TAL
العقاقة . • ر		for	FY	2004	,

DEC 1

Effective 10/01/2003. Patent fees are subject to annual revision.

Applicant claims small entity status. See 37 CFR 1.27

(\$) 0

TOTAL AMOUNT OF PA	YMENT
--------------------	-------

	Complete if Known	
Application Number	10/643,144	
Filing Date	August 18, 2003	
First Named Inventor	Gwang Hoon KWAG	
Examiner Name	Unknown	
Art Unit	1774	
Attorney Docket No.	61282.00007	

	ME	THOD OF PAYME	NT (check all that apply)					FEE C	ALCULATION (continued)	
Deposit Account	Chark C.C	rodit aged □ M	Janey C Other C None		3. AE	DITIO	VAL FE	ES		
Deposit Account O5-0150		C			Large	Entity	Small I	Entity		
Account Number Deposit Account Squire, Sanders & Denpsey L.L.P. 1053 130 1053 130 1053 130 1053 130 1053 130 1053 130 1053 130 1053 130 1053 130 1053 130 1053 130 1053 130 1053 130 1053 130 1053 130 1053 130 1053 130 1053 130 1053 130 1053 130 1053 130 1053 130 1053 130 1053 130 1053 130 1053 130 1053 130 1053 130 1053 130 1053 130 1053 130 1053 130 1053 130 1053 130 1053 130 1053 130 1053 130 1053 130 1053 130 1053 130 1053 130 1053 130 1053 130 1053 130 1053 130 1053 130 1053 130 1053 130 1053 130 1053 130 1053 130 1053 130 1053 130 1053 130 1053 130 1053 130 1053 130 1053 130 1053 130 1053 130 1053 130 1053 130 1053 130 1053 130 1053 130 1053 130 1053 130 1053 130 1053 130 1053 130 1053 130 1053 130 1053 130 1053 130 1053 130 1053 130 1053 130 1053 130 1053 130 1053 130 1053 130 1053 130 1053 130 1053 130 1053 130 1053 130 1053 130 1053 130 1053 130 1053 130 1053 130 1053 130 1053 130 1053 130 1053 130 1053 130 1053 130 1053 130 1053 130 1053 130 1053 130 1053 130 1053 130 1053 130 1053 130 1053 130 1053 130 1053 130 1053 130 1053 130 1053 130 1053 130 1053 130 1053 130 1053 130 1053 130 1053 130 1053 130 1053 130 1053 130 1053 130 1053 130 1053 130 1053 130 1053 130 1053 130 1053 130 1053 130 1053 130 1053 130 1053 130 1053 130 1053 130 1053 130 1053 130 1053 130 1053 130 1053 130 1053 130 1053 130 1053 130 1053 130 1053 130 1053 130 1053 130 1053 130 1053 130 1053 130 1053 130 1053 130 1053 130 1053 130									Fee Description	Fee Paid
Deposit Account Squire, Sanders & Dempsey LL.P. 1053 130 1053 130 1064 130 1067 130 1067 130 130 130 130 130 130 130 130 130 130 130 130 130 130 130 130 130 130 130 130 130 130 130 130 130 130 130 130 130 130 130 130 130 130 130 130 130 130 130 130 130 130 130 130 130 130 130 130 130 130 130 130 130 130 130 130 130 130 130 130 130 130 130 130 130 130 130 130 130 130 130 130 130 130 130 130 130 130 130 130 130 130 130 130 130 130 130 130 130 130 130 130 130 130 130 130 130 130 130 130 130 130 130 130 130 130 130 130 130 130 130 130 130 130 130 130 130 130 130 130 130 130 130 130 130 130 130 130 130 130 130 130 130 130 130 130 130 130 130 130 130 130 130 130 130 130 130 130 130 130 130 130 130 130 130 130 130 130 130 130 130 130 130 130 130 130 130 130 130 130 130 130 130 130 130 130 130 130 130 130 130 130 130 130 130 130 130 130 130 130 130 130 130 130 130 130 130 130 130 130 130 130 130 130 130 130 130 130 130 130 130 130 130 130 130 130 130 130 130 130 130 130 130 130 130 130 130 130 130 130 130 130 130 130 130 130 130 130 130 130 130 130 130 130 130 130 130 130 130 130 130 130 130 130 130 130 130 130 130 130 130 130 130 130 130 130 130 130 130 130 130 130 130 130 130 130 130 130 130 130 130 130 130 130 130 130 130 130 130 130 130 130 130 130 130 130 130 130 130 130 130 130 130 130 130 130 130 130 130 130 130 130 130 130 130 130 130 130 130 130 130 130		05-0150			1051	130	2051	65	Surcharge - late filing fee or oath	
Account Name	Number				1052	50	2052	25		
Name	Deposit				1053	130	1053	130	Non-English specification	
The Director is authorized to: (check all that apply) 1804 920 1804 920 1804 920 1804 920 1804 920 1804 920 1804 920 1804 920 1804 920 1804 920 1804 920 1804 920 1804 920 1804 920 1804 920 1804 920 1804 920 1804 920 1804 920 1804 920 1804 920 1804 920 1804 920 1804 920 1804 920 1804 920 1804 920 1804 920 1804 920 1804 920 1804 920 1804 920 1804 920 1804 920 1804 920 1804 920 1804 920 1804 920 1804 920 1804 920 1804 920 1804 920 1804 920 1804 920 1804 920 1804 920 1804 920 1804 920 1804 920 1804 920 1804 920 1804 920 1804 920 1804 920 1804 920 1804 920 1804 920 1804 920 1804 920 1804 920 1804 920 1804 920 1804 920 1804 920 1804 920 1804 920 1804 920 1804 920 1804 920 1804 920 1804 920 1804 920 1804 920 1804 920 1804 920 1804 920 1804 920 1804 920 1804 920 1804 920 1804 920 1804 920 1804 920 1804 920 1804 920 1804 920 1804 920 1804 920 1804 920 1804 920 1804 920 1804 920 1804 920 1804 920 1804 920 1804 920 1804 920 1804 920 1804 920 1804 920 1804 920 1804 920 1804 920 1804 920 1804 920 1804 920 1804 920 1804 920 1804 920 1804 920 1804 920 1804 920 1804 920 1804 920 1804 920 1804 920 1804 920 1804 920 1804 920 1804 920 1804 920 1804 920 1804 920 1804 920 1804 920 1804 920 1804 920 1804 920 1804 920 1804 920 1804 920 1804 920 1804 920 1804 920 1804 920 1804 920 1804 920 1804 920 1804 920 1804 920 1804 920 1804 920 1804 920 1804 920 1804 920 1804 920 1804 920 1804 920 1804 920 1804 920 1804 920 1804 920 1804 920		Squire, Sanders 8	& Dempsey L.L.P.		1812	2,520	1812	2,520	For filing a request for reexamination	
□ Charge fee(s) indicated below □ Credit any overpayments □ Charge fee(s) unique the pendency of this application of SIR after Examinar action □ Charge fee(s) indicated below, except for the filing fee to the above-identified deposit account. 1. BASIC FILING FEE 1253 950 2252 210		thorized to: (chi	ack all that annivi		1804	920*	1804	920*		
The above-identified deposit account 1252 420 2253 135 Extension for reply within second month 1252 420 2253 475 Extension for reply within fourth month 1252 420 2253 475 Extension for reply within fourth month 1253 950 2253 475 Extension for reply within fourth month 1255 2,010 2255 1,005 Extension for reply within fourth month 1255 2,010 2255 1,005 Extension for reply within fourth month 1255 2,010 2255 1,005 Extension for reply within fourth month 1401 330 2401 155 160 2002 170 Design filling fee 1402 330 2402 155 Notice of Appeal 1401 330 2401 155 Notice of Appeal 1402 330 2403 145 Request for oral hearing 1402 330 2402 155 Notice of Appeal 1402 330 2403 145 Request for oral hearing 1402 330 2403 145 Request for oral hearing 1451 1,510 1451 1,510 1451 1,510 1451 1,510 1451 1,510 1451 1,510 1451 1,510 1451 1,510 1451 1,510 1451 1,510 1451 1,510 1451 1,510 1451 1,510 1451 1,510 1451 1,510 1451 1,510 1451 1,510 1451 1,510 1451 1,510 1451 1,510 1451 1,510 1451 1,510 1451 1,510 1451 1,510 1451 1,510 1451 1,510 1451 1,510 1451 1,510 1451 1,510 1451 1,510 1451 1,510 1451 1,510 1451 1,510 1451 1,510 1451 1,510 1451 1,510 1451 1,510 1451 1,510 1451 1,510 1451 1,510 1451 1,510 1451 1,510 1451 1,510 1451 1,510 1451 1,510 1451 1,510 1451 1,510 1451 1,510 1451 1,510 1451 1,510 1451 1,510 1451 1,510 1451 1,510 1451 1,510 1451 1,510 1451 1,510 1451 1,510 1451 1,510 1451 1,510 1451 1,510 1451 1,510 1451 1,510 1451 1,510 1451 1,510 1451 1,510 1451 1,510 1451 1,510 1451 1,510 1451 1,510 1451 1,510 1451 1,510 1451 1,510 1451 1,510 1451 1,510 1451 1,510 1451 1,510 1451 1,510 14	Charge fee(s) in	ndicated below	☑ Credit any overpayments	1	1805	1,840*	1805	1,840*	Requesting publication of SIR after	
1. BASIC FILING FEE Large Entity Small Entity Fee					1251	110	2251	55	Extension for reply within first month	
1. BASIC FILING FEE Large Entity Small Entity	to the above-identi								Extension for reply within second	
1254 1,480 2254 740 Extension for repty within fourth month 1254 1,480 2254 740 Extension for repty within fourth month 1255 2,010 2255 1,005 Extension for repty within fifth month 1255 2,010 2255 1,005 Extension for repty within fifth month 1255 2,010 2255 1,005 Extension for repty within fifth month 1255 2,010 2255 1,005 Extension for repty within fifth month 1255 2,010 2255 1,005 Extension for repty within fifth month 1255 2,010 2255 1,005 Extension for repty within fifth month 1255 2,010 2255 1,005 Extension for repty within fifth month 1255 2,010 2255 1,005 Extension for repty within fifth month 1255 2,010 2255 1,005 Extension for repty within fifth month 1255 2,010 2255 1,005 Extension for repty within fifth month 1255 2,010 2255 1,005 Extension for repty within fifth month 1255 2,010 2255 1,005 Extension for repty within fifth month 1255 2,010 2255 1,005 Extension for repty within fifth month 1255 2,010 2255 1,005 Extension for repty within fifth month 1255 2,010 2255 1,005 Extension for repty within fifth month 1255 2,010 2255 1,005 Extension for repty within fifth month 1255 2,010 2255 1,005 Extension for repty within fifth month 1255 2,010 2255 1,005 Extension for repty within fifth month 1255 2,010 2255 1,005 Extension for repty within fifth month 1255 2,010 2255 1,005 Extension for repty within fifth month 1255 2,010 2255 1,005 Extension for repty within fifth month 1255 1,005 Extension for repty within fifth month 1255 1,005 Extension for repty within fifth month 1255 1,005 1255 1,005 1255 1,005 1255 1,005 1255 1,005 1255 1,005 1255 1,005 1255 1,005 1255 1,005 1255 1,005 1255 1,005 1255 1,005 1255 1,005 1255 1,005 1255 1,005 1255 1,005 1255 1,005 1255 1,005 1255 1,005 1255 1,005 1	4 546/05/				1253	950	2253	475		
Fee Fee Fee Code (\$) Co									Extension for reply within fourth	
1401 330 340 335 330 340 345 345 345 345 346 346 346 346 346 346 346 346 346 346 346 346 346 346 346 346 346 346 346 346 346 346 346 346 346 346 346 346 346 346 346 346 346 346 346 346 346 346 346 346 346 346 346 346 346 346 346 346 346 346 346 346 346 346 346 346 346 346 346 346 346 346 346 346 346 346 346 346 346 346 346 346 346 346 346 346 346 346 346 346 346 346 346 346 346 346 346 346 346 346 346 346 346 346 346 346 346 346 346 346 346 346 346 346 346 346 346 346 346 346 346 346 346 346 346 346 346 346 346 346 346 346 346 346 346 346 346 346 346 346 346 346 346 346 346 346 346 346 346 346 346 346 346 346 346 346 346 346 346 346 346 346 346 346 346 346 346 346 346 346 346 346 346 346 346 346 346 346 346 346 346 346 346 346 346 346 346 346 346 346 346 346 346 346 346 346 346 346 346 346 346 346 346 346 346 346 346 346 346 346 346 346 346 346 346 346 346 346 346 346 346 346 346 346 346 346 346 346 346 346 346 346 346 346 346 346 346 346 346 346 346 346 346 346 346 346 346 346 346 346 346 346 346 346 346 346 346 346 346 346 346 346 346 346 346 346 346 346 346 346 346 346 346 346 346 346 346 346 346 346 346 346 346 346 346 346 346 346 346 346 346 346 346 346 346 346 346 346 346 346 346 346 346 346 346 346 346 346 346 346 346 346 346 346 346 346 346 346 346 346 346 346 346 346 346 346 346 346 346 346 346 346 346 346 346 346 346 346 346 346 346					1255	2 010	2255	1 005		
1002 340 2002 170 Design filing fee 1403 290 2403 145 Request for oral hearing 1402 330 2402 165 Filing a brief in support of an appeal 1403 290 2403 145 Request for oral hearing 1451 1,510 1451 1,510 1451 1,510 1451 1,510 1451 1,510 1451 1,510 1451 1,510 1451 1,510 1451 1,510 1451 1,510 1451 1,510 1451 1,510 1451 1,510 1451 1,510 1451 1,510 1451 1,510 1451 1,510 1451 1,510 1451 1,510 1451 1,510 1451 1,510 1451 1,510 1451 1,510 1451 1,510 1451 1,510 1451 1,510 1451 1,510 1451 1,510 1451 1,510 1451 1,510 1451 1,510 1451 1,510 1451 1,510 1451 1,510 1451 1,510 1451 1,510 1451 1,510 1451 1,510 1451 1,510 1451 1,510 1451 1,510 1451 1,510 1451 1,510 1451 1,510 1451 1,510 1451 1,510 1451 1,510 1451 1,510 1451 1,510 1451 1,510 1451 1,510 1451 1,510 1451 1,510 1451 1,510 1451 1,510 1451 1,510 1451 1,510 1451 1,510 1451 1,510 1451 1,510 1451 1,510 1451 1,510 1451 1,510 1451 1,510 1451 1,510 1451 1,510 1451 1,510 1451 1,510 1451 1,510 1451 1,510 1451 1,510 1451 1,510 1451 1,510 1451 1,510 1451 1,510 1451 1,510 1451 1,510 1451 1,510 1451 1,510 1451 1,510 1451 1,510 1451 1,510 1451 1,510 1451 1,510 1451 1,510 1451 1,510 1451 1,510 1451 1,510 1451 1,510 1451 1,510 1451 1,510 1451 1,510 1451 1,510 1451 1,510 1451 1,510 1451 1,510 1451 1,510 1451 1,510 1451 1,510 1451 1,510 1451 1,510 1451 1,510 1451 1,510 1451 1,510 1451 1,510 1451 1,510 1451 1,510 1451 1,510 1451 1,510 1451 1,510 1451 1,510 1451 1,510 1451 1,510 1451 1,510 1451 1,510 1451 1,510 1451 1,510 1451 1,510 1451 1,510 1451 1,510 1451 1,510 1451 1,5		• • •		٦.		· 1			• •	\vdash
1003 530 2003 265 Plant filing fee 1403 290 2403 145 Request for oral hearing Petition to institute a public use proceeding Petition to revive – unavoidable 1452 110 2452 55 Petition to revive – unavoidable 1453 1,330 2453 665 Petition to revive – unavoidable 1452 110 2452 55 Petition to revive – unavoidable 1452 110 2452 110 2452 110 2452 110 2452 110 2452 110 2452 110 2452 110 2452 110 2452 110 2452 110 2452 110 2452 110 2452 110 2452 110 2452 110 2452 110 2452 110 2452 110 2452 110 2452 110 2452 110 2452 110 2452 110 2452 110 2452 110 2452 110 2452 110 2452 110 2452 110 2452 110 2452 110 2452 110 2452 110 2452 110 2452 110 2452 110 2452 110 2452 110 2452 110 2452 110 2452 110 2452 110 2452 110 2452 110 2452 110 2452 110 2452 110 2452 110 2452 110 2452 110 2452 110 2452 110 2452 110 2452 110 2452 110 2452 110 2452 110 2452 110 2452 110 2452 110 2452 110 2452 110 2452 110 2452 110 2452 110 2452 110 2452 110 2452 110 2452 110 2452 110 2452 110 2452 110 2452 110 2452 110 2452 110 2452 110 2452 110 2452 110 2452 110 2452 110 2452 110 2452 110 2452 110 2452 110 2452 110 2452 110 2452 110 2452 110 2452 110 2452 110 2452 110 2452 110 2452 110 2452 110 2452 110 2452 110 2452 110 2452 110 2452 110 2452 110 2452 110 2452 110 2452 110 2452 110 2452 110 2452 110 2452 110 2452 110 2452 110 2452 110 2452 110 2452 110 2452 110 2452 110 2452 110 2452 110 2452			· · ·	\dashv	l .				* *	\vdash
1004 770 2004 385 Reissue filing fee 1451 1,510 1,510 1,510 1,510 1,510 1,510 1,510 1,510 1,510 1,510 1,510 1,510 1,510 1,510 1,510 1,510 1,510 1,510 1,510 1,510 1,510 1,510 1,510 1,510 1,510 1,510 1,510 1,510 1,510 1,510 1,510 1,510 1,510 1,510 1,510 1,510 1,510 1,510 1,510 1,510 1,510 1,510 1,510 1,510 1,510 1,510 1,510 1,510 1,510 1,510 1,510 1,510 1,510 1,510 1,510 1,510 1,510 1,510 1,510 1,510 1,510 1,510 1,510 1,510 1,510 1,510 1,510 1,510 1,510 1,510 1,510 1,510 1,510 1,510 1,510 1,510 1,510 1,510 1,510 1,510 1,510 1,510 1,510 1,510 1,510 1,510 1,510 1,510 1,510 1,510 1,510 1,510 1,510 1,510 1,510 1,510 1,510 1,510 1,510 1,510 1,510 1,510 1,510 1,510 1,510 1,510 1,510 1,510 1,510 1,510 1,510 1,510 1,510 1,510 1,510 1,510 1,510 1,510 1,510 1,510 1,510 1,510 1,510 1,510 1,510 1,510 1,510 1,510 1,510 1,510 1,510 1,510 1,510 1,510 1,510 1,510 1,510 1,510 1,510 1,510 1,510 1,510 1,510 1,510 1,510 1,510 1,510 1,510 1,510 1,510 1,510 1,510 1,510 1,510 1,510 1,510 1,510 1,510 1,510 1,510 1,510 1,510 1,510 1,510 1,510 1,510 1,510 1,510 1,510 1,510 1,510 1,510 1,510 1,510 1,510 1,510 1,510 1,510 1,510 1,510 1,510 1,510 1,510 1,510 1,510 1,510 1,510 1,510 1,510 1,510 1,510 1,510 1,510 1,510 1,510 1,510 1,510 1,510 1,510 1,510 1,510 1,510 1,510 1,510 1,510 1,510 1,510 1,510 1,510 1,510 1,510 1,510 1,510 1,510 1,510 1,510 1,510 1,510 1,510 1,510 1,510 1,510 1,510 1,510 1,510 1,510 1,510 1,510 1,510 1,510 1,510 1,510 1,510 1,510 1,510 1,510 1,510 1,510 1,510 1,510 1,510 1,510 1,510 1,510 1,510 1,510 1,510 1,510 1,510				-					• • • • • • • • • • • • • • • • • • • •	\vdash
SUBTOTAL (1) SUBTOTAL (2) SUBTOTAL (2) SUBTOTAL (2) SUBTOTAL (3) SUBT	'''' -		· -	1					Petition to institute a public use	
SUBTOTAL (1) (\$) 0	1005 160 2	005 80 Pr	rovisional filling fee	╛	1452	110	2452	55	•	
2. EXTRA CLAIM FEES FOR UTILITY AND REISSUE Extra	·	OUDTOTAL ((4)	٦		-				\vdash
2. EXTRA CLAIM FEES FOR UTILITY AND REISSUE Extra Fee from Fee below Paid 1807 50 1807 50 Processing fee under 37 CFR 1.17 (q) 1806 180 1806 180 1806 180 1806 180 1806 180 1806 180 1806 180 1806 180 1806 180 1806 180 1806 180 1806 180 1806 180 1806 180 1806 180 1806 1806 1806 1806 1806 1806 1806 1806 1806 1806 1806 1806 1806 1806 1806 1806 1806 1806 1806 1806 1806 1806 1806 1806 1806 1806 1806 1806 1806 1806 1806 1806 1806 1806 1806 1806 1806 1806 1806 1806 1806 1806 1806 1806 1806 1806 1806 1806 1806 1806 1806 1806 1806 1806 1806 1806 1806 1806 1806 1806 1806 1806 1806 1806 1806 1806 1806 1806 1806 1806 1806 1806 1806 1806 1806 1806 1806 1806 1806 1806 1806 1806 1806 1806 1806 1806 1806 1806 1806 1806 1806 1806 1806 1806 1806 1806 1806 1806 1806 1806 1806 1806 1806 1806 1806 1806 1806 1806 1806 1806 1806 1806 1806 1806 1806 1806 1806 1806 1806 1806 1806 1806 1806 1806 1806 1806 1806 1806 1806 1806 1806 1806 1806 1806 1806 1806 1806 1806 1806 1806 1806 1806 1806 1806 1806 1806 1806 1806 1806 1806 1806 1806 1806 1806 1806 1806 1806 1806 1806 1806 1806 1806 1806 1806 1806 1806 1806 1806 1806 1806 1806 1806 1806 1806 1806 1806 1806 1806 1806 1806 1806 1806 1806 1806 1806 1806 1806 1806 1806 1806 1806 1806 1806 1806 1806 1806 1806 1806 1806 1806 1806 1806 1806 1806 1806 1806 1806 1806 1806 1806	l	SUBTUTAL	(5) 0							\vdash
Extra Fee from Fee 1503 640 2503 320 Plant issue fee 160 1460 130 1460 130 1460 130 Petitions to the Commissioner 1807 50 1807 50 1807 50 Processing fee under 37 CFR 1.17 (q) 1806 180 1806 180 1806 180 Submission of Information Disclosure Stmt Recording each patent assignment Recording each patent assignment Recording each patent assignment Recording each patent assignment Properties	2. EXTRA CLA	M FEES FOR	UTILITY AND REISSUE			, i			· · · · · ·	
Total Claims			Extra Fee from Fee						-	
Independent Claims Independent Claims Independent Claims Multiple Dependent Large Entity Fee Fee Code (\$) 1202 18 2202 9 Claims in excess of 20 1203 290 2203 145 Multiple dependent claim, if not paid 1204 86 2204 43 "Reissue independent claims over original patent over original patent over original patent SUBTOTAL (2) (\$) 0 **Cor number previously paid, if greater; For Reissues, see above 1807 50 Processing fee under 37 CFR 1.17 (q) 1807 1807 1808 180 180 1806 180 Submission of Information Disclosure Stmt Recording each patent assignment Recording each patent assignment Patent assignment Patent Paten				_						
Independent		<u>-</u> -) X = 0	4						
Multiple Dependent Large Entity Small Entity Small Entity		- ** = () X = 0						Submission of Information Disclosure	
Large Entity Small Entity Fee Fee Fee Code (\$) Fee Description 1202 18 2202 9 Claims in excess of 20 1201 86 2201 43 Independent claims in excess of 3 1203 290 2203 145 Multiple dependent claims over original patent 1204 86 2204 43 "Reissue independent claims over original patent 1205 18 2205 9 "Reissue claims in excess of 20 and over original patent SUBTOTAL (2) (\$) 0 **Reduced by Basic Filing Fee Paid SUBTOTAL (3) (\$) 0 *Reduced by Basic Filing Fee Paid SUBTOTAL (3) (\$) 0	Multiple Dependent	_	x = 0		8021	40	8021	40	Recording each patent assignment	
Code (\$) Code (\$) Fee Description (37 CFR § 1.129(a))	Large Entity	Small Entity								
1201 86 2201 43 Independent claims in excess of 3 1203 290 2203 145 Multiple dependent claims over original patent 1204 86 2204 43 **Reissue independent claims over original patent 1205 18 2205 9 **Reissue claims in excess of 20 and over original patent SUBTOTAL (2) (\$) 0 **Reduced by Basic Filing Fee Paid SUBTOTAL (3) (\$) 0			Fee Description		1809	770	2809	385		
1203 290 2203 145 Multiple dependent claim, if not paid 1204 86 2204 43 **Reissue independent claims over original patent **Reissue claims in excess of 20 and over original patent 1205 18 2205 9 **Reissue claims in excess of 20 and over original patent SUBTOTAL (2) (\$) 0 **Reduced by Basic Filing Fee Paid SUBTOTAL (3) (\$) 0 **Reduced by Basic Filing Fee Paid SUBTOTAL (3) (\$) 0	1202 18	2202 9	Claims in excess of 20		1810	770	2810	385		
1204 86 2204 43 ** Reissue independent claims over original patent ** Reissue claims in excess of 20 and over original patent ** Substotal (2) (\$) 0 **Tenumber previously paid, if greater, For Reissues, see above ** Reissue claims in excess of 20 and over original patent ** Reissue claims in excess of 20 and over original patent ** Continued Examination (RCE) ** 1802 900 Request for expedited examination of a design application ** Other fee (specify) ** ** Reissue claims in excess of 20 and over original patent ** Other fee (specify) ** ** Reissue claims in excess of 20 and over original patent ** Other fee (specify) ** ** Request for expedited examination (RCE) ** ** Request for expedited examination (RCE) ** ** Reissue claims in excess of 20 and over original patent ** Other fee (specify) ** ** Reissue claims in excess of 20 and over original patent ** Other fee (specify) ** ** Request for expedited examination (RCE) ** ** Reissue claims in excess of 20 and over original patent ** Other fee (specify) ** ** Request for expedited examination (RCE) ** ** Request for expedited examination of a design application ** Other fee (specify) ** Reduced by Basic Filing Fee Paid ** Substotal (3) ** Other fee (specify) ** Reduced by Basic Filing Fee Paid ** Substotal (3) ** Other fee (specify) ** Reduced by Basic Filing Fee Paid ** Substotal (3) ** Other fee (specify) ** Reduced by Basic Filing Fee Paid ** Substotal (3) ** Other fee (specify) ** Reduced by Basic Filing Fee Paid ** Substotal (3) ** Other fee (specify) ** Reduced by Basic Filing Fee Paid ** Substotal (3) ** Other fee (specify) ** Other f	1201 86	2201 43	Independent claims in excess of 3						examined (37 CFR § 1.129(b))	
1205 18 2205 9 **Reissue claims in excess of 20 and over original patent SUBTOTAL (2) (\$) 0 **Term number previously paid, if greater, For Reissues, see above **Term number previously paid, if greater, For Reissues, see above 1802 900 1 1802 900 Request for expedited examination of a design application Other fee (specify) *Reduced by Basic Filing Fee Paid SUBTOTAL (3) (\$) 0	1203 290	2203 145	Multiple dependent claim, if not pa	id	1801	770	2801	385	Request for Continued Examination (RCE)	
1205 18 2205 9 ** Reissue claims in excess of 20 and over original patent Other fee (specify) **Telessue claims in excess of 20 and over original patent Other fee (specify) *Reduced by Basic Filing Fee Paid SUBTOTAL (3) (\$) 0	1204 86 .	2204 43		r	1802	900	1802	900		
SUBTOTAL (2) (\$) 0 **or number previously paid, if greater, For Reissues, see above **Or number previously paid, if greater, For Reissues, see above **Or number previously paid, if greater, For Reissues, see above	1205 18	2205 9		and					or a design application	
SUBTOTAL (2) (\$) 0 **Reduced by Basic Filing Fee Paid SUBTOTAL (3) (\$) 0 **Or number previously paid, if greater, For Reissues, see above	1200	1 2200 0	over original patent		Other fe	e (snecil	fv)			
**or number previously paid, if greater; For Reissues, see above		SUE	STOTAL (2) (\$) 0							
SUDMITTED BY	••or number previo	usly paid, if greater;	For Reissues, see above	J	*Reduc	ed by Ba	asic Filing	Fee Pa	aid SUBTOTAL (3) (\$) 0	
	CUPMITTED BY			_					Complete (if eastleshie)	

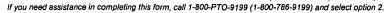
Name (Print/Type)
Aaron Wininger
(Attorney/Agent)
45,229
Telephone
650.856.6500

Date
December 8, 2003

WARNING: Information on this form may become public. Credit card information should not be included on this form. Provide credit card information and authorization on PTO-2038.

Registration No.

This collection of information is required by 37 CFR 1.17 and 1.27. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to take 12 minutes to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.



Attorney Docket No.: 61282.00007

PATENT

ED STATES PATENT AND TRADEMARK OFFICE

CERTIFICATE OF MAILING

I hereby certify that this paper (along with any paper referred to as being attached or enclosed) is being deposited with the United States Postal Service on the date shown below with sufficient postage as first class mail in an envelope addressed to Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450, on

Date: 12/8/03

In re Application of:

Gwang Hoon KWAG, et al.

Examiner:

Unknown

Serial No.:

10/643,144

Art Unit:

1774

Filed:

August 18, 2003

Title:

BLUE LIGHT-EMITTING, LADDER-

TYPE POLYMER WITH EXCELLENT

HEAT STABILITY

Commissioner for Patents P.O. Box 1450 Alexandria, VA 22313-1450

INFORMATION DISCLOSURE STATEMENT PURSUANT TO 37 CFR §§1.97(b)

Sir:

In accordance with the duty of disclosure under 37 CFR §1.56 and pursuant to 37 CFR §§1.97-1.98, Applicants hereby notify the U.S. Patent and Trademark Office of the references listed on the enclosed Form PTO-1449. Pursuant to the PTO's waiver of the requirements under 37 CFR 1.98(a)(2)(i) for submitting a copy of each cited U.S. patent/patent application for new applications filed after June 30, 2003, we are not submitting copies of the U.S. patents cited. However, we are enclosing copies of German Patent Nos. DE 198 46 766 A1, DE 198 46 767 A1, DE 198 46 768 A1 and the Applied Physics Letters article.

In re KWAG, et al. U.S. Appln. No.: 10/643,144 Page 1 of 2 56266

PATENT

Attorney Docket No.: 61282.00007

The present Information Disclosure Statement is being filed more than three months after the filing date but before receiving the first Office Action. Accordingly, no fee or certification is needed.

The submission of the listed documents is not intended as an admission that any such document constitutes prior art against the claims of the present application. Applicants reserve

the right to dispute any of the listed documents as prior art during examination. Furthermore, Applicants do not waive any right to take any action that would be appropriate to antedate or otherwise remove any listed document as a competent reference against the claims of the present application. The submission of this Information Disclosure Statement is not to be construed as a representation that a search has been made or that no other material information may exist.

The Examiner is requested to initial the enclosed Form PTO-1449 and return a copy thereof to the undersigned.

If for any reason an insufficient fee has been paid, please charge the insufficiency to Deposit Account No. 05-0150.

Date:

Date: 12/0/07

Squire, Sanders & Dempsey L.L.P.

600 Hansen Way

Palo Alto, CA 94304-1043

Telephone (650) 856-6500

Facsimile (650) 843-8777

Respectfully submitted, .

Aaron Wining

Attorney for Applicants

Reg. No. 45,229

In re KWAG, et al. U.S. Appln. No.: 10/643,144

PTO/SB/08a (08-03)

Approved for use through 07/31/2006. OMB 0651-0031

U.S. Patent and Trademark Office; U.S. DEPARTMENT OF COMMERCE
Under the Paperwork Resistion Act of 1995, no passons are required to respond to a collection of information unless it contains a valid OMB control number.

Substitute for form 1449A/PTO :::

INFORMATION DISCLOSURE STATEMENT BY APPLICANT

(Use as many sheets as necessary)

Sheet 1 of 2

	Complete if Known	
Application Number	10/643,144	
Filing Date	August 18, 2003	
First Named Inventor	Gwang Hoon KWAG	
Art Unit	1774	
Examiner Name	Unknown	
Attorney Docket Number	61282.00007	

-			U.S. PATENT [OCUMENTS	
Examiner Initials *	Cite No. ¹	Document Number Number - Kind Code ² (if known)	Publication Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Document	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear
		US-5,593,788	01-14-1997	Shi et al.	
		US- 5,597,890	01-28-1997	Jenekhe, Samson A.	
		US- 5,763,636	06-09-1998	Kreuder et al.	
		US- 5,900,327	· 05-04-1999	Pei et al.	
		US- 5,998,045	12-07-1999	Chen et al.	
		US- 6,395,410	05-28-2002	Wehrmann et al.	•
		US-			
-		US-		·	
		US-			

		FORE	GN PATENT I	OCUMENTS		
Funminas	Cite	Foreign Patent Document		Name of Batantas as Applicant	Pages, Columns, Lines,	
Examiner Initials*	No.1	Country Code ³ - Number ⁴ - Kind Code ⁵	Publication Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Document	Where Relevant Passages or Relevant Figures Appear	T ⁶
		DE 198 46 766 A1	04-20-2000	Aventis Research & Technologies GmbH & Co KG		
		DE 198 46 767 A1	04-20-2000	Aventis Research & Technologies GmbH & Co KG		
•		DE 198 46 768 A1	04-20-2000	Aventis Research & Technologies GmbH & Co KG		
						-
						

Examiner Signature	Date Considered	

*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant. ¹ Applicant's unique citation designation number (optional). ² See Kinds Codes of USPTO Patent Documents at www.uspto.gov or MPEP 901.04. ³ Enter Office that issued the document, by the two-letter code (WIPO Standard ST.3). ⁴ For Japanese patent documents, the indication of the year of the reign of the Emperor must precede the serial number of the patent document. ⁵ Kind of document by the appropriate symbols as indicated on the document under WIPO Standard ST. 16 if possible. ⁶ Applicant is to place a check mark here if English language Translation is attached.

This collection of information is required by 37 CFR 1.97 and 1.98. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to take 2 hours to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.

PTO/SB/08b(08-03)

Approved for use through 07/31/2006. OMB 0651-0031 U.S. Patent and Trademark Office; U.S. DEPARTMENT OF COMMERCE

decitive Paperway reduction Act of 1995, no persons are required to respond to a collection of information unless it contains a valid OMB control number

Substitute for	r form 1449B/F	TO			Complete if Known	
		A I DIOO		Application Number	10/643,144	
			LOSURE	Filing Date	August 18, 2003	
STATE	MENT	BY API	PLICANT	First Named Inventor	Kwang Hoon KWAG	
				Art Unit	1774	
(4	Use as many s	sheets as ne	cessary)	Examiner Name	Unknown	
Sheet	2	of	2	Attorney Docket Number	61282.00007	

		NON PATENT LITERATURE DOCUMENTS	
Examiner Initials *	Cite No.1	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published.	T²
		SHERAW, C. D., et al.; "Organic thin-film transistor-driven polymer-dispersed liquid crystal displays on flexible polymeric substrates"; Applied Physics Letters; February 11, 2002; pages 1088-1090; Volume 80, Number 6; Copyright 2002 American Institute of Physics.	
		·	
· · · · · · · · · · · · · · · · · · ·			
			
			l
Examiner Signature		Date Considered	

^{*}EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance

^{*}EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

Applicant's unique citation designation number (optional). Applicant is to place a check mark here if English language Translation is attached. This collection of information is required by 37 CFR 1.98. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to take 120 minutes to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.